

REMARKS

Claims 1-4 were presented for examination and were pending in this application. In an Official Action dated October 3, 2007, claims 1-4 were rejected. Applicant thanks the Examiner for examination of the claims pending in this application and addresses the Examiner's comments below.

Applicant is amending claims 1 and 2 in this Amendment and Response. In making these amendments, Applicant does not concede that the subject matter of such claims was in fact disclosed or taught by the cited prior art. Rather, Applicant reserves the right to pursue such protection at a later point in time and merely seeks to pursue protection for the subject matter presented in this submission.

Based on the above Amendment and the following Remarks, Applicant respectfully requests that the Examiner reconsider all outstanding objections and rejections, and withdraw them.

Objection to the Drawings

The Examiner has objected to Figure 1, stating that it should be designated by a legend, such as Prior Art, because only that which is old is illustrated.

The drawing has now been changed to expressly label Figure 1 as Prior Art. Additionally, the drawing has been changed to include reference characters to comply with 37 CFR 1.74. No admission as to the scope of prior art is made thereby.

Approval of the Proposed Drawing Change is respectfully requested. It is also respectfully requested that the Examiner explicitly indicate his approval thereof in the next official communication.

The Examiner has objected to Figure 2, stating a failure to comply with 37 CFR 1.74 because the figure lacks any reference characters.

The drawing has now been changed to include reference characters to comply with 37 CFR 1.74. No admission as to the scope of prior art is made thereby.

Approval of the Proposed Drawing Change is respectfully requested. It is also respectfully requested that the Examiner explicitly indicate his approval thereof in the next official communication.

Response to Rejection Under 35 USC 102(b)

In the Office Action, the Examiner rejects claim 1 under 35 USC § 102(b) as allegedly being anticipated by U.S. Patent No. 6,401,137 (“Wolczko”). This rejection is now traversed.

As amended, claim 1 recites a method of protecting application program software including:

actuating a tracer function to copy a segment of instructions from the API code;
storing and executing the copied instructions; and
returning to the next instruction of the API code, wherein the next instruction of the API code is a first uncopied instruction of the API code.

These features of the claimed invention beneficially avoid a breakpoint at the beginning of the API code by actuating a tracer function to copy a segment of instructions from the API code and executing the copied instructions. After execution of the copied instructions, the software program returns to the next instruction of the API code which is a first uncopied instruction of the API code. Hence, execution of the original API code containing the breakpoint is avoided.

Wolczko discloses a method of patching instructions related to the virtual call within a single instruction cycle. (Wolckzo, col. 2, ln. 37-42) Wolczko does not disclose “actuating a tracer function to copy a segment of instructions from the API code.” Rather, as noted by the Examiner, Wolczko discloses “call 210 and address identifier 212 related instructions cleverly fit within a predetermined boundary of inline cache.” (Wolckzo, col. 6, ln. 7-9) Wolckzo stores the entire virtual call and the address identifier related instructions within inline cache to execute the entire virtual call method within a single instruction cycle. If Wolckzo determines the class of the virtual call’s receiver object is not the same as the last receiver object, then a binder routine is called to patch the virtual call to the correct method. (Wolckzo, col. 7, ln. 48-51) The binder routine process includes that all “instructions related to the virtual call are placed within the predetermined boundary of the memory storage device.” (Wolckzo, col. 8, ln. 12-14) Thus, Wolckzo stores all instructions in the memory storage device, such as inline cache. In contrast, the claimed invention only copies a segment of instructions from the API code.

Additionally, Wolckzo does not disclose “returning to the next instruction of the API code, wherein the next instruction of the API code is a first uncopied instruction of the API code.” Wolckzo discloses executing the entire virtual call method within a single instruction cycle before returning to detect the next virtual call. (Wolckzo, FIG. 3, element 335) Thus, Wolckzo cannot return to the next uncopied instruction, as claimed, because the intention of Wolckzo is to alleviate the problems of the prior art through the execution of the entire virtual call method in one single instruction cycle. The claimed invention **requires** returning to the next uncopied instruction of the API code to execute the remaining API instructions.

Based on the above amendment and the remarks, Applicant respectfully submits that for at least these reasons claims 1 is patentably distinguishable over the cited reference. Therefore, Applicant respectfully requests that the Examiner reconsider the rejection, and withdraw it.

Response to Rejection Under 35 USC 103(a)

In the Office Action, the Examiner rejects claim 2 under 35 USC § 103(a) as allegedly being unpatentable over Wolczko.

As amended, claim 2 recites “the method of claim 1 wherein the segment of instructions is a maximum of 16 instructions and the copied instructions are stored in the Random Access Memory (RAM) of the CPU.” Claim 2 has been amended to be dependent on claim 1. Because the obviousness rejection of claim 2 applied Wolczko only for the dependent limitations in the claim, this rejection suffers from the same deficiencies pointed out above with respect to Wolczko. As a result, the obviousness of Wolczko does not disclose or suggest the limitations of the claim.

Based on the above remarks, Applicant respectfully submits that for at least these reasons claim 2 is patentably distinguishable over the cited reference. Therefore, Applicants respectfully request that the Examiner reconsider the rejection and withdraw it.

In the Office Action, the Examiner rejects claim 3 under 35 USC § 103(a) as allegedly being unpatentable over Wolczko in view of U.S. Patent No. 7,080,257 (“Jakubowski”).

Because the obviousness rejection of claim 3 applied Jakubowski only for the dependent limitations in the claim, this rejection suffers from the same deficiencies pointed

out above with respect to Wolczko. Jakubowski fails to remedy any of the deficiencies of Wolczko as described above. As a result, the combination of Wolczko and Jakubowski does not disclose or suggest the limitations of these claims.

Based on the above remarks, Applicant respectfully submits that for at least these reasons claim 3 is patentably distinguishable over Wolczko and Jakubowski either alone and in combination. Therefore, Applicants respectfully request that the Examiner reconsider the rejection and withdraw it.

In the Office Action, the Examiner rejects claim 4 under 35 USC § 103(a) as allegedly being unpatentable over Wolczko in view of U.S. Patent No. 6,367,071 (“Cao”). This rejection is respectfully traversed.

Because the obviousness rejection of claim 4 applied Cao only for the dependent limitations in the claim, this rejection suffers from the same deficiencies pointed out above with respect to Wolczko. Cao fails to remedy any of the deficiencies of Wolczko as described above. As a result, the combination of Wolczko and Cao does not disclose or suggest the limitations of these claims.

Based on the above remarks, Applicant respectfully submits that for at least these reasons claim 4 is patentably distinguishable over Wolczko and Cao either alone and in combination. Therefore, Applicants respectfully request that the Examiner reconsider the rejection and withdraw it.

Conclusion

In sum, Applicant respectfully submits that claims 1 through 4, as presented herein, are patentably distinguishable over the cited references. Therefore, Applicant requests reconsideration of the basis for the rejections to these claims and request allowance of them.

In addition, Applicant respectfully invites the Examiner to contact Applicant's representative at the number provided below if the Examiner believes it will help expedite furtherance of this application.

Respectfully Submitted,

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